

Serial No. 10/673,339

Attorney Docket No. 02-102

**REMARKS**

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

The applicants acknowledge and appreciate receiving an initialed copy of the form PTO-1449 that was filed on 30 September 2003.

In a telephone interview held on or about 19 December 2005, the applicants proposed amending the independent claims to add a recitation of the V-shaped nature of the recess in each ridge. However, the examiner replied that he is aware of two references that disclose a V-shaped recess. Examiner Comas said that he could apply either of these two references in combination with other references to reject such proposed claims. The two references were given as DE 3900295 A1 and US 3140414. The applicants appreciate the examiner's consideration of their proposal.

Claims 1, 6-13, 18, and 20-25 are pending. Claims 2-5, 14-17, and 19 have been canceled. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Claims 1-13, 18, and 19 were rejected under 35 USC 103(a) as being unpatentable over publication 2001/0004177 to Terada et al. in view of the Japanese patent to Oba et al. (9168255). Claims 2-5 and 19 have been canceled and thus will not be discussed. As for claims 1, 6-13 and 18, the applicants respectfully request that this rejection be withdrawn for the following reasons.

Serial No. 10/673,339

Attorney Docket No. 02-102

Claim 1 recites that the first space is defined on one side of the protrusion of the low projecting portion, and the second space is defined on the other side of the protrusion of the low projecting portion between the protrusion of the low projecting portion and the protrusion of the high projecting portion. Claim 1 further recites that at least a portion of the first space and at least a portion of the second space are placed along an imaginary line that is parallel to the projecting direction of the ridge. These features of claim 1 are clearly shown in, for example, FIGS. 8 and 9. With reference to FIG. 8, the first space is defined on the lower side (the backside of the plane of FIG. 8) of protrusion 15b, and the second space is defined on the upper side (the front side of the plane of FIG. 8) of the protrusion 15b between the protrusion 15b and the protrusion 14d. A portion of the first space and a portion of the second space are placed along an imaginary line that is parallel to the projecting direction of the ridge, i.e., along an imaginary line that is perpendicular to the plane of FIG. 8.

With this arrangement, the corresponding portion of the dielectric body will be firmly held in the first and second spaces with aid of the protrusions 15b, 14d. More specifically, the protrusions 15b, 14d are placed one after another in the radial direction to form a double protrusion structure, and this double protrusion structure effectively holds the corresponding portion of the dielectric body placed in the first and second spaces to resist the removal of the commutator segment from the dielectric body in the radial direction. This double protrusion structure exerts a stronger holding force, for holding the commutator segment relative to the dielectric body, in comparison to the apparatuses of any of the cited references, i.e., Terada et al. (US 2001/0004177A1) and Oba et al. (JP9168255A), each of which discloses an arrangement of

Serial No. 10/673,339

Attorney Docket No. 02-102

a single protrusion of the commutator segment in the radial direction, and this single protrusion provides less holding force for holding the dielectric body in comparison to that of the double protrusion structure of claim 1.

Furthermore, none of the cited references teach or suggest the use of the double protrusion structure for holding the commutator segment relative to the dielectric body to more strongly resist the radial removal of the commutator segment. Thus, a person skilled in the art cannot easily combine the protrusion of the Terada et al. (US 2001/0004177A1) and the protrusion of Oba et al. (JP9168255A) to form the double protrusion structure of claim 1. Accordingly, claim 1 and its dependent claims should be patentable over the combination of references relied on in the office action.

Claims 6-13 depend on claim 1, directly or indirectly. Therefore, claims 6-13 are considered to be patentable for the reasons given above with respect to claim 1.

Claim 18 recites the limitations similar to claim 1. Therefore, claim 18 and its dependent claims should be patentable for reasons given above in the discussion of claim 1.

Claims 20-25 are new. New claims 20-25 are dependent, directly or indirectly, on one of the independent claims discussed above. Therefore, claims 20-25 are considered to be patentable based on their dependency. Further, claims 20-25 recite characteristic features not taught by the cited references. Thus, new claims 20-25 should also be patentable for the limitations that they introduce.


Serial No. 10/673,339

Attorney Docket No. 02-102

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,

  
James E. Barlow  
Reg. No. 32,377

Posz Law Group, PLC  
12040 South Lakes Drive, Suite 101  
Reston, VA 20191  
Phone 703-707-9110  
Fax 703-707-9112  
Customer No. 23400